imagery analysis report

Antiradiation Missile Test Activity at Makat and Terekty ASM Impact Areas, USSR, During 1980 (S)

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ANTIRADIATION MISSILE TEST ACTIVITY AT MAKAT AND TEREKTY ASM IMPACT AREAS, USSR, DURING 1980 (S)

INTRODUCTION

1. (S/D) This report provides a summary of antiradiation missile (ARM) test activities observed at radiation-emitting (radar) targets in the Makat Air-to-Surface Missile (ASM) Impact Area (BE and Terekty ASM Impact Area USSR, during 1980. Each impact area contains one primary ARM target—Makat Target Area B and Terekty ASM Radar Area A Both impact areas are in the southwestern European USSR. Makat is approximately 85 nautical miles/155 kilometers (nm; km) northeast of the Caspian Sea. Terekty is approximately 100 nm/185 km to the east and downrange of the Vladimirovka Advanced Weapons and Research Complex (VAWARC) Rangehead. Both are associated with the ARM and ASM testing programs of the VAWARC (Figure 1). 25X1 25X1 25X1

2. (S/D) Evidence of probable ARM test activity was observed in both target areas during the reporting period. At least six new impact craters were confirmed at Makat Target Area B. Two of these impacts were apparently direct hits on BAR LOCK/BIG BAR radars at two of the target radar sites. Limited photographic coverage of Terekty ASM Radar Area A precluded a complete assessment of test activities during this reporting period. A comparison of revealed the presence of at least four new impact craters at four of the five radar sites in the target area. Two of the craters probably resulted from direct hits on BAR LOCK/BIG BAR radars. 25X1

DESCRIPTION

Makat Target Area B

3. (S/D) Makat Target Area B contains three target radar sites (north, northeast, and northwest), a support area, and a salvage yard. Each radar site when operational contains one BAR LOCK/BIG BAR set consisting of the rotatable antenna transmitter-receiver van (radar van) with its antenna sail assemblies, an operators van, at least two generator vans, trailers, and a prime mover or truck for towing the vehicles. Radar van orientation at each of the target radar sites varied throughout the reporting period. Also, no electronic countermeasures (ECM) equipment was observed in the target area during this reporting period. On the target area was snow covered. The three target radar sites appeared to be operational; however, no new impact craters were present. Figure 2 provides an overall view of Makat Target Area B with new impact craters. 25X1

4. (S/D) The first new impact crater observed during the reporting period was seen at the north radar site on impact crater at 48-03-06N 053-43-07E was approximately northeast of the radar van. 25X1 25X1

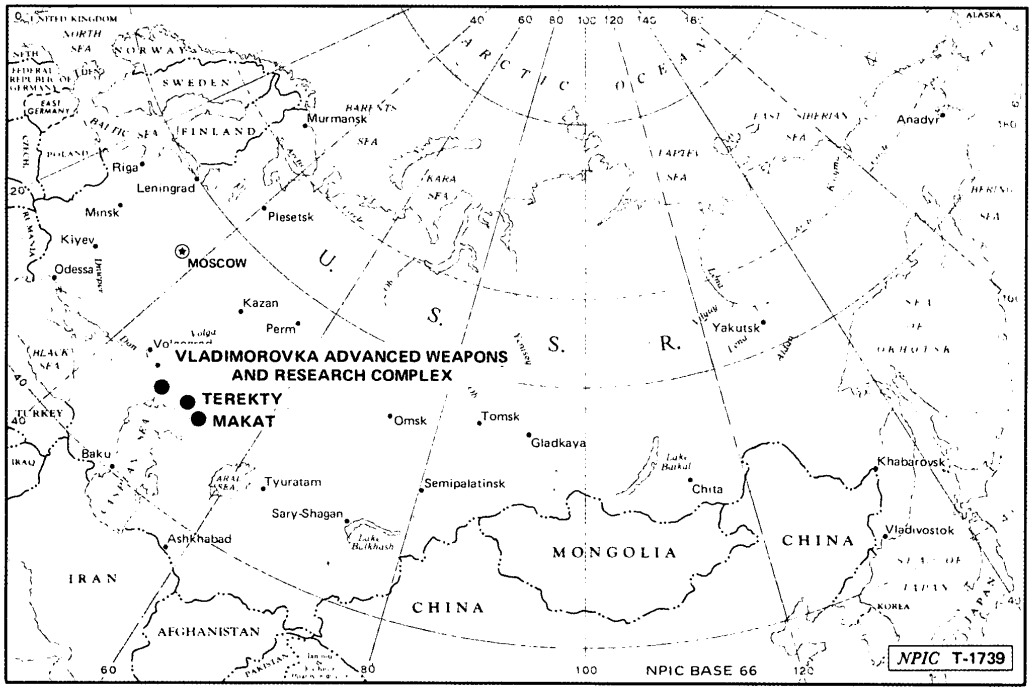

FIGURE 1. LOCATION OF MAKAT AND TEREKTY ASM IMPACT AREAS AND VLADIMIROVKA ADVANCED WEAPONS AND RESEARCH COMPLEX, USSR

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5. (S/D) The results of a direct hit on a radar van were seen at the northeast radar site on [redacted] 25X1
[redacted] The [redacted] diameter by [redacted] deep impact crater was at 48-03-09N 053-43-31E, where 25X1
a radar van had been positioned on [redacted] The associated radar support vehicles were present on both 25X1
days (Figures 3A and B). On [redacted] a new radar van was next to the crater and a new [redacted] 25X1
diameter by [redacted] deep impact crater was at 48-03-09N 053-43-25E, approximately [redacted] northwest 25X1
of the radar van. The radar van at the northwest radar site was not present on [redacted] but no new impact 25X1
crater was seen.

6. (S/D) Two additional impact craters were seen on [redacted] One impact crater, [redacted] 25X1
meters in diameter by [redacted] deep, was at 48-02-42N 053-43-13E, approximately [redacted] west of 25X1
the radar van at the northwest radar site. The other impact crater, [redacted] in diameter by [redacted] 25X1
deep, was at 48-03-05N 053-43-05E, approximately [redacted] northwest of the radar van at the north 25X1
radar site.

7. (S/D) Evidence of a second direct hit was seen in November. Only the northwest radar site was occupied by a radar van on [redacted] On [redacted] 25X1
deep impact crater was at 48-02-42N 053-43-13E, where the radar van had been positioned on [redacted] 25X1

8. (S/D) When last observed on [redacted] the three target radar sites were occupied by 25X1
support vehicles only. No radar vans or new impact craters were observed.

9. (S/D) Additional radar vans were observed in the support area and salvage yard. One to three complete radar vans were in the support area near 48-02-28N 053-43-30E during the reporting period. On [redacted] one complete radar van was seen, and another radar van had its antenna sail lying on the 25X1
ground nearby. A third radar van had a partially assembled antenna sail, and additional antenna sail sections were nearby. At least ten damaged radar vans, most without antenna sails, were in the salvage yard near 48-02-11N 053-43-16E during the reporting period.

Terekty ASM Radar Area A

10. (S/D) Terekty ASM Radar Area A contains five target radar sites (A1 through A5), a support area, and two salvage yards (Figure 4). On [redacted] radar sites A2, 25X1
A4, and A5 contained BAR LOCK/BIG BAR radar vans and their associated radar vehicles; radar site A1 contained two radar-associated vehicles; and radar site A3 contained only a small probable radar-associated vehicle. On [redacted] BAR LOCK/BIG BAR radars and their associated vehicles were at 25X1
all five target radar sites, and a probable FENCER was overflying the radar sites in an easterly direction. Only radar sites A2 and A4 contained radar vans and associated radar vehicles on [redacted] 25X1
Radar site A5 did not appear to contain a radar van, but one or two probable radar-associated vehicles were present. Target radar site A1 contained one associated radar vehicle. Radar site A3 contained a small, probable radar-associated vehicle. No ECM equipment was identified at the target radar sites during this period. Approximately ten BAR LOCK/BIG BAR radar vans and associated equipment were in the support and salvage areas; two BACK NET radars were also seen in the support area during the period. The BACK NET radar is probably used to monitor ASM test activities.

11. (S/D) Comparison of [redacted] revealed the presence of 25X1
at least four new impact craters at four of the five target radar sites (Figure 4). Site A1 contained one new [redacted] diameter impact crater and two other impact craters of 8 and 10 meters in diameter; radar site 25X1
A2 contained one new [redacted] diameter impact crater and three other impact craters of [redacted] 25X1
[redacted] in diameter; radar sites A3 and A5 each contained a new [redacted] impact crater. 25X11
No new impact crater was seen at radar site A4. The depth of the new impact craters could not be accurately determined.

[redacted] 25X1

(S) Comments and queries regarding this report are welcome. They may be directed to [redacted] Warsaw Pact 25X1
Forces Division, Imagery Exploitation Group, NPIC, [redacted] 25X1

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